Model FG3C

WAVETEK®

3MHz Sweep/Function Generator

- *Square, Triangle, Sine Waves, TTL and CMOS Pulse Outputs*
- *0.3Hz to 3MHz Range*
- *Linear or Logarithmic Sweep*
- *Amplitude or Frequency Modulation*
- *Built-in 150MHz Frequency Counter with 6 digit LED Display*
- *Voltage Controlled Frequency (VCF) Input*
- *Switchable 20dB Attenuator*
- *Signal Polarity Invert Button*
- *Variable Duty-Cycle*
- *Variable DCV Offset*

The FG3C is a low cost sweep/function generator which features outstanding versatility, performance and five available signals. The signals available include sine wave, triangle wave, square wave, TTL pulses and CMOS pulses. The FG3C provides linear or logarithmic sweep of any of the selected signal outputs and performs either amplitude or frequency modulation with internal or external modulating frequencies. Duty-cycle control allows the 50% duty-cycle of output signals to be changed to any desired value. This produces short duration pulses or sawtooth (ramp) signals. An invert button allows you to quickly change the polarity of the signal.

Its built-in, LED digital display frequency counter eliminates the need to connect an external counter to verify frequency settings. In addition, the LED counter can be used as a stand-alone counter for measuring external signals up to 150MHz. A voltage controlled frequency (VCF) feature allows you to vary the frequency as a function of the VCF input. A switchable 20dB output attenuator is available where low signal levels are needed.

The FG3C is housed in a modern case with a dual-purpose carrying handle-tilt stand for both portable and bench-top applications. The instrument comes complete with test leads, Operator's Manual (Multi-lingual: English, Spanish, French and German), spare fuse and a removable power cord.

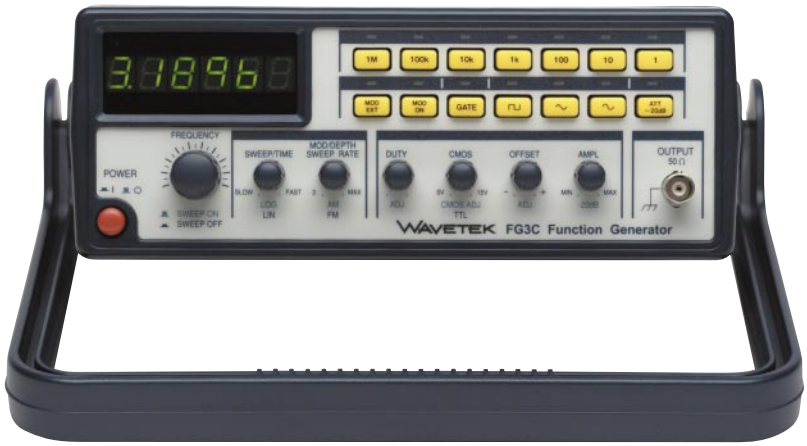
FG3C Specifications *(at 23ºC; ≤70%RH)*

Main	
Frequency Range	0.3Hz to 3MHz (7 ranges)
Amplitude	>10Vpp (into 50Ω load)
Impedance	50Ω ±10%
Attenuator (knob)	-20dB±1dB
Attenuator (button)	-20dB±1dB
DC Offset	<-5V to >+5V (into 50Ω load)
Duty-Cycle Control	80%:20%:80% to 1MHz; Continuously variable
Range Accuracy	±5%, +1Hz (@ 3.0 position)
Sine Wave	
Distortion	≤1%, 0.3Hz to 200kHz THD <35dB below fundamental in all ranges (Specification applied from MAX. to 1/10 level)
Flatness	<0.3dB, 0.3Hz to 300kHz; <0.5dB, 300kHz to 3MHz;
Triangle Wave	
Linear	≥98%, 0.3Hz to 100kHz; ≥95%, 100kHz to 3MHz
Square Wave	
Symmetry	±2%, 0.3Hz to 100kHz
Rise or Fall Time	<100ns at maximum output (into 50Ω load)
CMOS Output	
Level	4Vpp,±1Vpp to 14.5Vpp ±0.5Vpp adjustable
Rise or Fall Time	≤120ns
TTL Output	
Level	≥3Vpp
Fan Out	20 TTL load
Rise or Fall Time	≤25ns

VCF	
Input Voltage	-10 to +10, ±1V (100:1)
Input Impedance	10kΩ,±10%
GCV	
Output Voltage	To set the voltage between 0 to 2V as per diff. freq.
Sweep Operation	
Sweep/Manual	Switch selector
Sweep/Rate	100:1 ratio maximum, adjustable
Sweep/Time	0.5sec. to 30sec. adjustable
Sweep/Mode	Lin./Log. switch selector
Amplitude Modulation	
Depth	0 to 100%
Modulation Freq.	400Hz (INT), DC to 1MHz (EXT)
Carrier BW	100Hz to 3MHz (-3dB)
EXT Sensitivity	≤10Vpp for 100% modulation
Frequency Modulation	
Deviation	0 to ±5%
Modulation Freq.	400Hz (INT), DC to 20kHz (EXT)
EXT Sensitivity	≤10Vpp for 10% modulation
Frequency Counter	
Int./Ext.	Switch Selector
Range	0.3Hz to 3Mz Internal; 5Hz to 150MHz External
Accuracy	Time base accuracy ±1 count
Time Base	±10ppm (23ºC,±3 ºC), after 30 min. warm-up)
Resolution	10nHz (1Hz range); 1kHz (100MHz range)
Input Impedance	1MΩ /150pF
Sensitivity	≤35mVrms (5Hz to 100MHz)
	≤45mVrms (100MHz to 150Mhz)

GENERAL SPECIFICATIONS:

Display: 6 digit; Green LED, 7.6mm (0.3inches) high; **Power Source:** 115VAC or 230VAC, ±15%; 50/60Hz; **Operating Env:** For indoor use. Altitude up to 2000M., 0ºC to 40ºC, 80%RH; **Storage Env:** -10ºC to 70ºC@70%RH; **Size:** 243W x 93H x 292Dmm; **Weight:** 2.2kgs. (4.8lbs); **Safety Approvals:** EN61010-1, Cat. II, Pollution degree 2; **Warranty:** One Year



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